



Raymond®

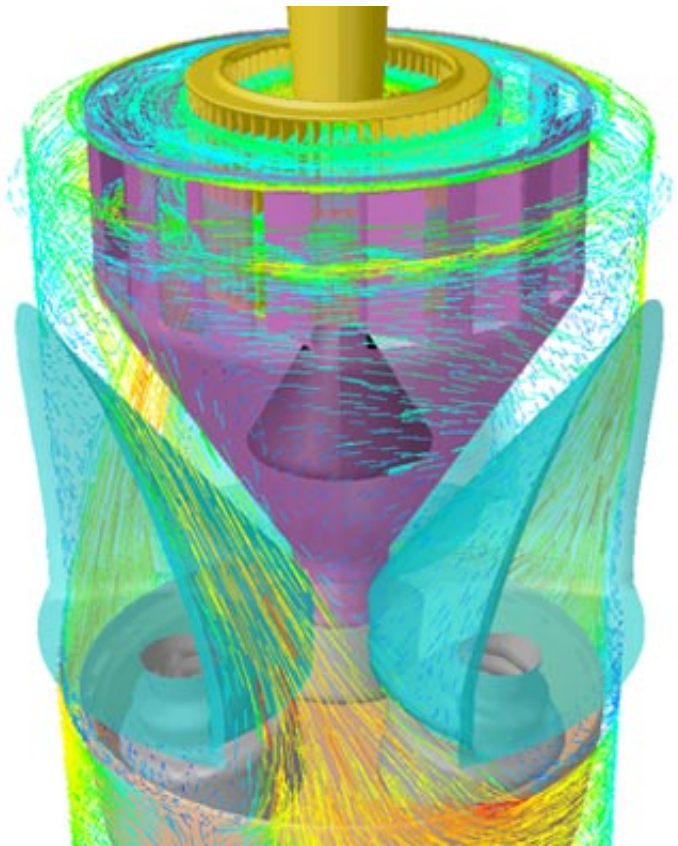
New Generation Dynamic Classifiers for RB Bowl Mills

Upgrade for Critical Particle Size Control and Improved Capabilities for Processing Solid Fuels

The Raymond® Bowl Mill is the worldwide industry standard for simultaneously pulverizing, classifying and drying coal and petroleum coke used to fuel cement, lime, steel and power plants, as well as other industrial process applications. Pulverized fuel fineness requirements may range from 70% to 95%, or more, passing 200 mesh (74 microns).

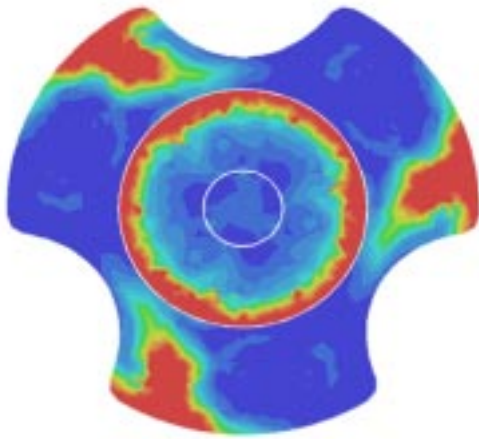
The new Raymond® Hybrid Turbine Classifier's patent pending design possesses significant advantages that enhance overall system and process performance. The pulverizer now being capable of consistently producing pulverized fuel with finenesses compatible with today's combustion technology. Among these advantages:

- The Raymond® Hybrid Turbine Classifier provides a more efficient classification, and is able to achieve more accurate particle size control, resulting in a steeper product size distribution.
- The Raymond® Hybrid Turbine Classifier equips the bowl mill with the capability to produce a pulverized fuel possessing a higher fineness and increase the bowl mill's capacity.
- The Raymond® Hybrid Turbine Classifier meets NFPA 8503 requirements.



**Air Preheater Company
Raymond Operations**

The flow pattern inside the Raymond® RB Bowl Mill concentrates the pulverized fuel stream into three distinct currents illustrated in the computational fluid dynamics (CFD) model shown. This segregation disrupts the efficiency of separation for either static or dynamic classifiers. The Raymond® Hybrid Turbine Classifier equalizes the distribution of the pulverized fuel as it is introduced to the turbine rotor, optimizing the classification process. The result is a more efficient separation, giving the Bowl Mill the ability to generate a finer product at improved levels of production.



The following operational advantages can be realized with the use of the Raymond® Hybrid Turbine Classifier:

- When properly operated, the Bowl Mill is now capable of producing pulverized fuel having a lower top size, resulting in a better controlled flame and combustion process, with reduced emissions and unburned carbon;
- The steeper particle size distribution now produced by the Bowl Mill facilitates combustion of solid fuel possessing a coarser average particle size without sacrificing system performance or process capability. Mill capacity can be increased and overall plant efficiency improved.

This new generation of dynamic classifier is available for your Raymond® RB Bowl Mill, and the design can be applied to the newer RS/RP/HP pulverizer models or extrapolated to other manufacturers' equipment.

Power Requirements for Raymond® RB Bowl

RB Mill Model	Classifier Power - kW
453	5
493	5
533	8
573	8
613	11
633	11
673	15
733	18
753	18

